



ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

2809 Fish Hatchery Rd., Suite 204, Madison, Wisconsin 53713 www.floods.org

Phone: 608-274-0123 Fax: 608-274-0696 Email: asfpm@floods.org

TESTIMONY

Association of State Floodplain Managers, Inc.

before the
House Transportation and Infrastructure Subcommittee on Water Resources and
Environment

Reducing Hurricane and Flood Risk in the Nation

Presented By:
Rod Emmer, ASFPM Member and
Executive Director, Louisiana Floodplain Management Association

October 27, 2005

Background

In the aftermath of Hurricanes Katrina, Rita and Wilma, the Association of State Floodplain Managers (ASFPM) envisions a number of key legislative policy changes to strengthen the programs of the U.S. Army Corps of Engineers and reduce future loss of lives and property due to flooding. We appreciate the opportunity to discuss those with you today.

ASFPM and its 21 Chapters represent over 8,000 state and local officials and other professionals who are engaged in all aspects of floodplain management and hazard mitigation. These include land management, mapping, engineering, planning, building codes and permits, community development, hydrology, forecasting, emergency response, water resources and insurance. Many of our members work with communities impacted by hurricanes Katrina and Rita, or work with organizations that are assisting those communities in rebuilding. All ASFPM members are concerned with working to reduce our nation's flood-related losses. Our state and local officials are the federal government's partners in implementing programs and working to achieve effectiveness in meeting our shared objectives. For more information about the Association, please visit <http://www.floods.org>.

The recent tragedies on most of the Gulf Coast, in Florida and in the Northeast are reminders to the nation that we are very susceptible to natural hazards – especially flooding – and that we must have programs, policies and institutions that can adequately handle these events, efficiently use taxpayer money and build a more sustainable future. Nothing less than our nation's prosperity and economic security are at stake. The Congress and this Committee will be at the center of this discussion with an opportunity to make policy changes that can have importance and relevance far into the future.

Some Historical Perspective

The devastation in the Gulf Coast and New Orleans from Katrina is unprecedented in recent US History. Yet, the history in our nation and the world provide ample evidence that large natural disasters occur frequently and with a vengeance. Whether we are discussing tsunamis, hurricanes, floods, wildfires, or earthquakes, natural hazards remain a primary force that can bring about catastrophic consequences to every region and state in the United States.

All of us will contribute to the rebuilding the Gulf coast and the New Orleans area, not only through our personal contributions but with our tax dollars. Therefore, there must be an evaluation of how we plan, mitigate, and respond to natural hazards in order to ensure that the nation is not ignoring natural hazards while positioning to deal with human-caused disasters and acts of terrorism. We must rebuild in a way that reduces the risk of flooding and hurricanes in the future, and the human suffering that follows.

One need only look back to 1992 when Hurricane Andrew demonstrated that we had inadequate policy to deal with the situation when a large area is impacted, and that significant pressure will be brought forth politically to relax

reconstruction standards, perhaps leaving the rebuilt structures more hazard prone than prior to the disaster. Many of these inadequacies were corrected during the Great Midwest flood recovery of 1993 that led to resources being made available, such that the recovery and reconstruction was done consistent with good practices. Other needs for change in policies were identified, but not accomplished, but still warrant completion or reconsideration.

Likewise, the nation has ignored critical infrastructure, including levees, for years. Following the failure of the Teton Dam in 1976, it was apparent that a national dam safety program was warranted and a highly effective federal-state-dam owner partnership was established that reduces the risk of catastrophic dam failure in the nation. Levees are simply dams that guide water downstream, and there is a need for us to implement a levee safety program patterned after the national dam safety program.

Recommendations

The specific recommendations that ASFPM is making to the Committee are:

1. **Immediate actions to stabilize people and communities.** The magnitude of the disaster in New Orleans and in the Gulf Coast is so great that every effort must be taken to stabilize the populations and return the people of these areas to some sense of normalcy. This approach may lack some efficiency but is necessary. To be successful it requires a commitment by all to see the entire recovery through, but until this first step is taken people will not be able to focus on wise long term rebuilding, a rational recovery option will not occur. This recovery option should include the following steps-
 - a. Repair and stabilize all flood protective works to meet pre-Katrina design.
 - b. Engage, support, and encourage State/Regional/local authorities in the creation of a long term vision for the redevelopment of impacted areas.
 - c. Fund those parts of Coastal Louisiana that start the process of restoring the natural barriers that protect the Gulf Coast
 - d. Design new structural and non-structural protective works that provide a more realistic level of protection, for river flooding in urban areas and for critical infrastructure this should be the 500-year level of protection, and for New Orleans and coastal urban areas the equivalent is a Category 4 or 5 hurricane.

It is clear that the Gulf Coast region has immense impact on the nation's economy, and taking steps to stabilize and position this region for the future is essential to the well being of the region and the nation. Likewise, taking steps that reduce the chances that this type of disaster would be repeated is necessary.

2. **The nation needs an integrated National Levee Policy.** Numerous federal agencies deal with levees for different programs in different ways. The Corps of Engineers and NRCS build levees for different purposes with different guidelines. FEMA produces flood maps for 20,000 communities in the nation, many of which have levees. How to determine if those levees are adequate, and how to map the

areas behind those levees must be done by integrating the needs and programs of all federal agencies along with state and local partners who either build or operate and maintain thousands of miles of levees.

- a. **ASFPM believes levees should be considered an option of last resort and used only to protect existing communities. Levees should not be used to protect undeveloped land with the speculation new development will be placed at risk behind those levees.** There is no current policy addressing this issue. When levees are used to protect highly urbanized areas with critical infrastructure those levees must be built strong enough to prevent future catastrophes like Katrina. It is unwise public policy that provides the same level of protection to New Orleans as is provided to corn fields. Further, damageable structures behind those levees should be elevated to some extent or take other mitigation steps to avoid the catastrophic damage in the case of levee failure or overtopping.
- b. What kind of commitment must a community make to operating and maintaining a levee if it is accorded status as being “adequate” to protect lives and property? Once those standards are agreed upon, what are the consequences if the community fails to meet the operation and maintenance standards? Again, no such standards currently exist.

The Corps of Engineers should be tasked to lead a Federal/State/ Local work group to develop an Integrated National Levee Policy

3. **National Levee Safety Program** The U.S. has no national inventory of levees, nor do we know the condition (the adequacy or safety) of many of these levees. An inventory of the levees in the nation would show perhaps tens of thousands of miles of levees, with hundreds of thousands of structures at risk in those “protected” zones. Property owners behind levees assume they are protected, and so they are surprised, angry, and often financially ruined when levees fail. The State of California has been told by its courts that the state is responsible for damages caused due to failure of levees for which the State is the levee sponsor. That exposes the state to potentially billions of dollars in liability. Communities with levees throughout the nation face these issues.

This situation is no different from the threat the nation faced in 1976 following the failure of the Teton Dam, the only difference being that it was a catastrophic dam failure and not a levee failure that provided the catalyst for a national dam safety policy. As a result of this initial Federal effort, a state supported Dam Safety program of inspection and maintenance has arisen in most states, greatly reducing the threat and impact of catastrophic dam failure.

The US Army Corps of Engineers should be charged and funded to immediately undertake a National Levee Safety Inspection initiative as part of the USACE Floodplain Management Services Program. This initiative would be similar to the inspection and inventory the Corps performed at the instigation of the Nation’s dam safety program. Just as in dam safety, the Federal

government should not have continuing or long term responsibility for levee safety. That is the responsibility of State and local governments. As such, consideration should be given to developing federal incentives for State and local programs that adopt appropriate levee safety management strategies by providing them priority in project funding and/or by providing enhanced cost shares for those that adopt and implement an improved levee safety program.

4. **Wetland Restoration is often a key part of structural protection.** Experts all agree that wetlands provide significant flood protection benefits. It was suggested that much of the vast damage in the New Orleans area could have been avoided had the loss of wetland areas been avoided/reduced or if more wetlands had been restored prior to the Hurricane. Data indicates that the storm surge is reduced by one foot for every 2.7 miles of wetlands. If we do not undertake to protect and enhance these wetlands, New Orleans and much of the Gulf Coast will be directly exposed to the open water of the Gulf. If that happens, it will not be feasible, from either economic or engineering standpoints, to protect those areas during future hurricanes. **We urge Congress to fund those appropriate elements of the Coastal Louisiana project that will provide wetland protection.** Further, we urge that wetland restoration receive renewed attention by the Corps nationwide. ASFPM agrees with the National Research Council (NRC) suggestion that the Corps needs to design a program that moves away from attempting to justify wetland restoration utilizing economic analyses that fail to fully capture all benefits of that restoration.
5. **Level of Protection provided by Levees.** Driven by disconnected federal policy, the level of flood protection from levees in communities has gravitated downwards towards a 1% (100-year) level. In highly urbanized areas, in particular when the consequences of failure can be catastrophic, a 1% standard is insufficient. The tragedy of Katrina demonstrates we cannot have hospitals, police, fire, water supply, wastewater treatment and other critical facilities inoperable or inaccessible during major flood events. It has been suggested, and the ASFPM supports, that: **In urbanized areas where the impacts of flood damages are catastrophic, Federal flood control projects should be designed to provide protection at or above the 0.2% (500-year) flood level.**
6. **Reducing Adverse Personal Economic Impacts.** We must develop approaches to provide property protection and financial security to those who believe they are protected by structural works and hence think they are not at risk. Hundreds of thousands of properties exist behind levees, below dams or in storm surge areas. Those people have a “false sense of security” in thinking they will never be flooded. As such, they generally do not have, nor do they think they need to, in any way insure their building(s) or mitigate them. Katrina has provided a real life demonstration that these are not “no risk” areas. There is a need to design a program that would manage this residual risk. **The Corps should be directed to work with other appropriate federal agencies (FEMA, NRCS, NOAA) to**

design a program to manage the residual risk associated with its projects through insurance and mitigation.

Not only will this protect individuals, it will protect communities and the nation's taxpayers from the consequence of catastrophic damages when those measures fail or are overtopped from larger events. The mitigation and insurance measures need not be expensive, because even small measures and amounts reduce the pool of damages and claims. In addition, a small annual insurance premium provides those property owners with yearly evidence and awareness that they are actually subject to flood risk

7. **Technical assistance to communities and states.** Communities with levees need technical assistance to help determine: is their levee safe; how to properly operate and maintain that levee; and to develop and analyze the various structural and non-structural options in the event their levee is not certified as adequate. The Corps of Engineers has two programs which provide technical assistance to communities and states (these are small programs of technical assistance, outside the Corps' "water resources projects" program) Flood Plain Management Services is currently authorized at \$15 million and Planning Assistance to States (PAS) is authorized at \$10 million.. Both have been consistently under funded, severely limiting the ability of the Corps to provide technical assistance. ASFPM recommends that the Committee not only urge the Appropriations Committee to fully fund this program, but that the Committee act to increase the base authorizations significantly for both programs. These programs offer the counties and communities of the nation the opportunity to benefit from Corps expertise in developing "bottom up" solutions to their flood loss mitigation issues. The need for local consultation with the Corps is made abundantly clear by the current recovery needs along the Gulf Coast. Local jurisdictions need the technical assistance provided by Corps expertise, not only for major structural projects, but to develop non-structural or combined structural and non-structural remedies as redevelopment takes place.
8. **Update the "Principles and Guidelines"** used by the Corps in project development. These Principles have not been updated since 1978 and in reality were a modification of Principles that have guided Corps programs since the 1930's. The challenges facing the nation today are different, and the Principles do not currently lend themselves to identification of appropriate projects that meet the needs of communities, states or the nation's taxpayers. The planning process: was developed for a different era; is premised on a rather short sighted expression of federal interest; has helped create an unmanageable backlog of projects; and in spite of well laid intentions, the process inherently can not avoid bias and pre-determined outcomes.

The reality of today's NED model is that the least cost solution to a problem generally is not the NED alternative; the opportunity cost of federal investment in an inherently risky area as compared to a less hazardous area is not considered; the impact to disadvantaged areas is rarely considered; and the model does not

consider the impact that long term damages will have on the federal budget as it relates to disaster payments. NED has a role in the decision making process, but it needs to be balanced with other planning objectives and national goals. An updated P&G will assist both the Corps and Congress in promoting a water resources program that makes sense for the next century, rather than continuing to focus on what was relevant in the last century

The complexities of this problem cannot be solved in limited testimony, and should not be crafted on the fly through a legislative process. What should be done however is to direct the administration to develop revisions to P&G that reflect current realities, broaden the approach such that NED is part of the decision making process; and finally directs the administration to consider the project formulation and delivery process.

9. **Establishing priorities for Corps projects.** Determining which Corps projects should be on the top of the priority list for funding is difficult, at best. Updating P&G should assist in this process. ASFPM suggests a higher priority should be placed on those projects that protect lives and property (public safety) in communities with existing developments, or those projects that would prevent at risk development through the creation and conservation of open space; rather than the types of projects which are justified based on enhancing local economic conditions, but rarely represent an opportunity that could not be replicated outside a flood hazard area.

Other Related Recommendations

1. **Post-disaster mitigation funding must be restored.** The Hazard Mitigation Grant Program (HMGP) provides mitigation funds after a disaster as part of the Disaster Relief Act. Funding for that program was started in 1988, but was inadequate to be effective until the Midwest floods of 1993, when Congress increased funding to 15% of the disaster costs. In FY 2003, the funding level was reduced to 7.5%, and has again proved inadequate. Property owners are most receptive to mitigating their property at a time when they have to rebuild anyway. Communities are more responsive to assisting in cost sharing mitigation in the wake of disasters. Mitigation cost sharing with federal funds under this program is only done after a rigorous test to ensure that benefits over the life of a project exceed the cost of the mitigation. This opportunity for mitigation should not be missed. Rebuilding after Hurricanes Dennis, Katrina, Rita and Wilma will be expensive enough once, let us not set ourselves up to do it again when the next major hurricane takes aim at the Gulf coast. While this issue is not under the purview of this Subcommittee, it is under the purview of the full Committee, and we urge your support in connecting all these disaster reduction efforts.

Further, we urge the Committee to make clear that in areas appropriate for rebuilding, the mitigation option known as “demolish and rebuild” should be available for use under the HMGP program. The Army Corps has made use of

this option in the past and its guidelines could be used by FEMA and others.

2. **The Corps should be directed to work with FEMA to incorporate Corps flood map inundation data on FEMA's flood risk maps.** This would assist in expanding FEMA's flood maps to include "residual risk" areas for the purpose of including those areas as mandatory purchase areas under the National Flood Insurance Program.
3. **Federal monies should not place people and structures at risk, nor contribute to the increased flood risk of structures and people.** Many agencies will spend billions of taxpayers monies in our efforts to rebuild the Gulf coast. This includes the Corps of Engineers, FEMA, HUD, EDA, EPA and DOT. It is imperative those agencies do not increase flood risk, or cause flood risk to be increased through their actions. Federal Executive Order # 11988 directs all federal agencies to analyze their actions to avoid increasing flood risk by their actions to build, finance or provide technical assistance. We urge this Subcommittee to condition each program authorization on compliance with this Executive Order.

Conclusion

The ASFPM represents the federal government's state and local partners in the continuing quest to reduce flood damages and disasters. Today, we once again stand at a crossroads---in the aftermath of a catastrophic flood disaster, with an opportunity to work with you to refine national flood policy that will serve the nation for decades to come. Thank you for the opportunity to provide the wisdom and expertise of our members on these important issues. The ASFPM and our members look forward to working with you as we move toward the common goal of reducing flood disasters.

For more information, please contact Larry Larson, ASFPM Executive Director (608) 274-0123 (larry@floods.org), or Pam Pogue, Chair (401) 946-9996 (pam.pogue@ri.ngb.army.mil) or Rod Emmer (225) 923-3743 (remmerla@bellsouth.net)

ASFPM testimony_House T&I_Reducing Hurricane & Flood Risk in Nation_10-27-05 final.doc